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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,740	09/28/2001	Christopher D. Batich	QMT1.1-CIP-US	4440
3775 7590 11/14/2008 ELMAN TECHNOLOGY LAW, P.C. P. O. BOX 209 SWARTHMORE, PA 19081				
EXAMINER ANDERSON, CATHARINE L				
ART UNIT		PAPER NUMBER		
3761				
MAIL DATE		DELIVERY MODE		
11/14/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/965,740

**Applicant(s)**

BATICH ET AL.

**Examiner**

Lynne Anderson

**Art Unit**

3761

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 30,31,33-36,38-40,42,44-46,51,67-69,72 and 86-93 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30,31,33-36,38-40,42,44-46,51,67-69,72 and 86-93 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Allowable Subject Matter***

1. The indicated allowability of claims 30-31, 33-36, 38-40, 42, 44-46, 51, 67-69, 72, and 86-93 is withdrawn in view of the newly discovered reference(s) to Sawan et al. (6,126,931). Rejections based on the newly cited reference(s) follow.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 30-31, 33-36, 38-40, 42, 44-46, 51, 68-69, 72, 86-91, and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawan et al. (6,126,931) in view of Perrault et al. (6,039,940).
4. With respect to claims 30-31, 38-40, 42, 51, 72, and 90-91, Sawan discloses all aspects of the claimed invention with the exception of the antimicrobial being a quaternary ammonium. Sawan discloses an antimicrobial composition comprising a substrate and a coating layer, as described in column 2, lines 31-42. The coating comprises a polymeric material, as disclosed in column 5, lines 32-47. The coating is non-leachably bound by covalent bonds to the substrate, as disclosed in column 4, lines 12-14 and 52-54.
5. Perrault teaches the use of quaternary ammonium groups to provide antimicrobial activity to a polymeric material, as disclosed in column 3, lines 20-22. The

quaternary ammonium groups provide increased antimicrobial activity but are non-irritating, as disclosed in column 4, lines 34-36. It would therefore be obvious to one of ordinary skill in the art at the time of invention to provide the material of Sawan with quaternary ammonium groups, as taught by Perrault, to provide increased antimicrobial activity while remaining are non-irritating.

6. With respect to claims 34-36, 44-46, 68-69, 86-89, and 93, the substrate comprises materials that can be flexible, natural or synthetic superabsorbent polymers, for use as air filters, as disclosed in column 7, line 56, to column 8, line 19.

7. Claims 67 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawan et al. (6,126,931) in view of Perrault et al. (6,039,940), and further in view of Kolb et al. (6,797,856).

8. Sawan, as modified by Perrault, fails to disclose dimethyldiallylammonium chloride (DADMAC). Kolb teaches the use of quaternary ammonium and DADMAC as equivalent compounds in the treatment of an absorbent material for antimicrobial purposes, as disclosed in column 6, lines 16-33. It would therefore be obvious to one of ordinary skill in the art at the time of invention to treat the flexible substrate of Sawan with dimethyldiallylammonium chloride, as taught by Kolb, since it is functionally equivalent to quaternary ammonium.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Anderson whose telephone number is (571)272-4932. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tanya Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. A./  
Examiner, Art Unit 3761  
/Tatyana Zalukaeva/  
Supervisory Patent Examiner, Art Unit 3761